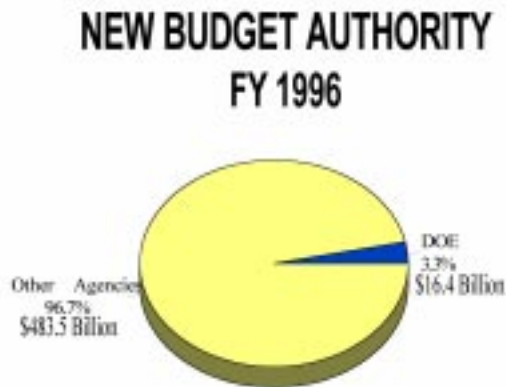


## Overview

The following overview and accompanying audited financial statements have been prepared for Fiscal Year (FY) 1996 to report the financial position and the results of operations of the Department of Energy. These statements include the consolidated Statement of Financial Position and the consolidated Statement of Operations and Changes in Net Position. The statements have been prepared in accordance with the Office of Management and Budget Bulletin No. 94-01, *Form and Content for Agency Financial Statements*, and were developed in accordance with the hierarchy of accounting standards described therein.



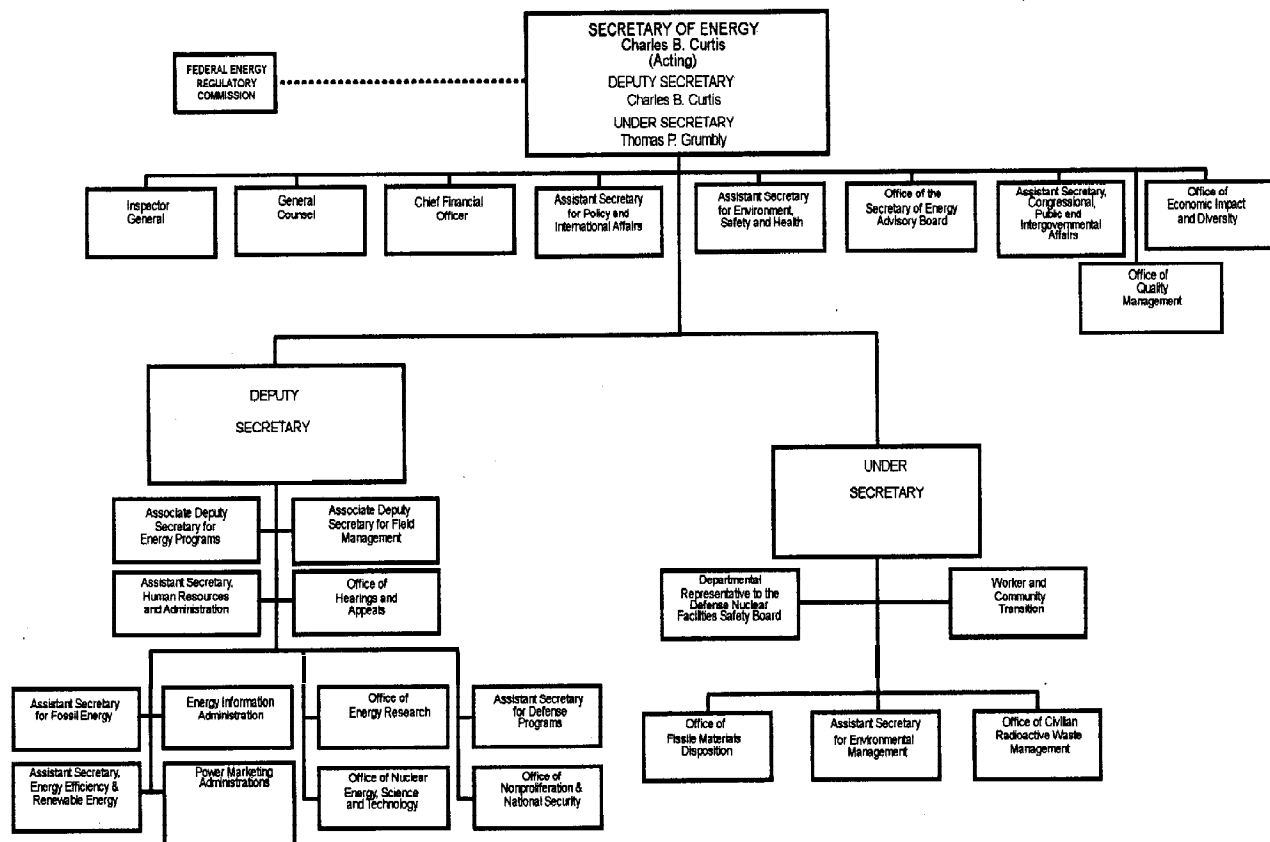
The overview provides a narrative on the Department of Energy's mission, activities, and accomplishments. Utilizing performance measures as the primary vehicle for communicating Departmental accomplishments and results, this overview discusses the most significant measures while others are discussed in the supplemental information to the financial statements.

## Profile of the Department of Energy

The Department of Energy's roots can be traced to the Manhattan Engineer District of the U.S. Army Corps of Engineers, which was established in 1942 to manage development of the atomic bomb. After World War II, Congress created the Atomic Energy Commission in 1946 to direct the design, development, and production of nuclear weapons. The Atomic Energy Commission was also responsible for developing nuclear reactors and, in later years, regulating the commercial nuclear power industry. In 1975, Congress replaced the Atomic Energy Commission with the Nuclear Regulatory Commission and the Energy Research and Development Administration. These agencies were created to manage the nuclear weapons, naval reactors, and energy development programs and to research the environmental, biomedical, and safety aspects of energy technologies. In 1977, Congress created the Department of Energy, which brought together functions and responsibilities of the Energy Research and Development Administration and units of other agencies under one cabinet level department.

Today the Department of Energy provides vital services to the nation in preserving our national security, advancing U.S. leadership in science and technology, building a sustainable energy future, and engaging in the largest environmental cleanup of our nation's history. At the Department of Energy, we are focused on the way we deliver these services in view of our changing post-Cold War mission and our obligation to make the most cost effective use of the taxpayer's hard earned dollars.

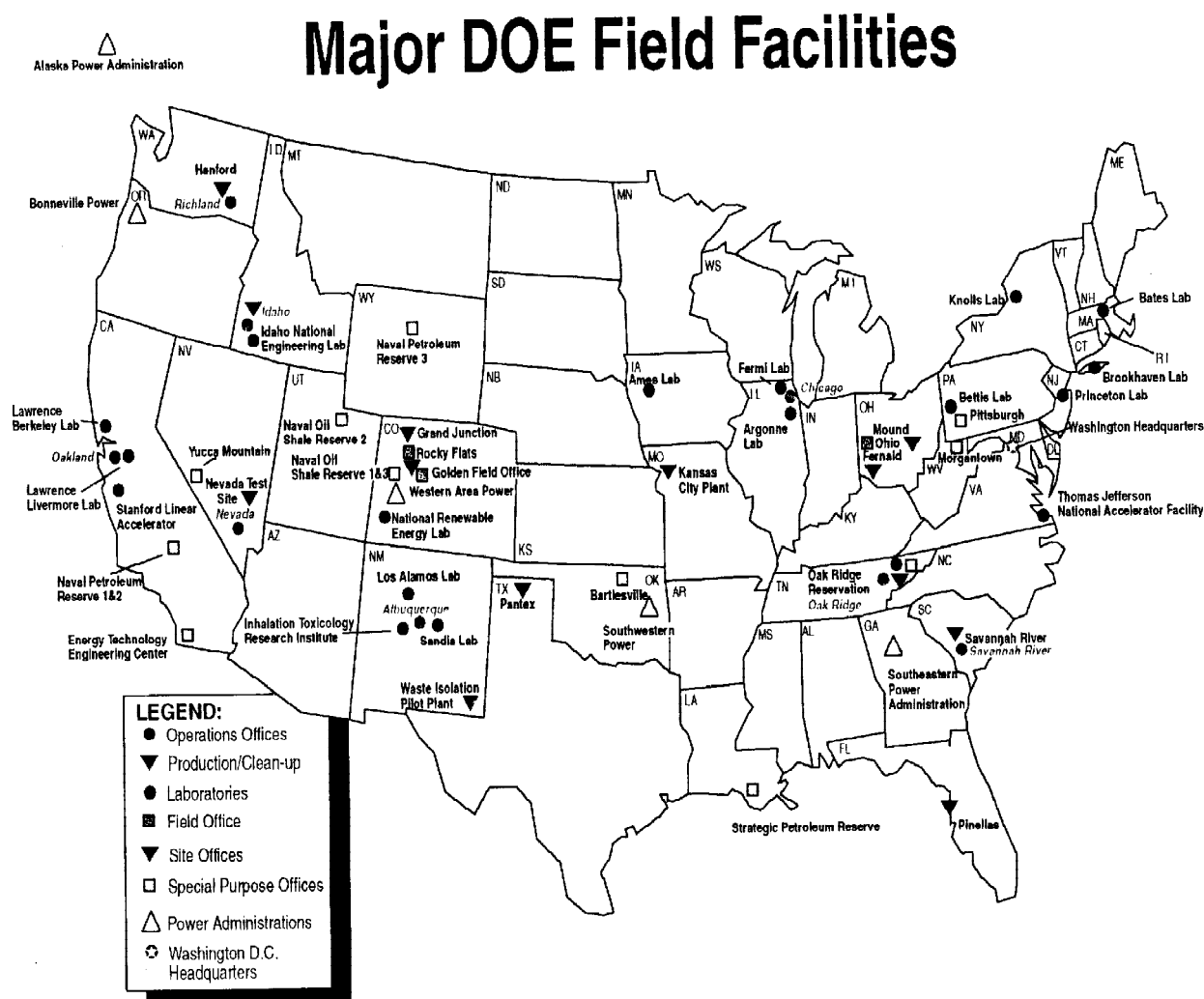
## Organization and Structure of the Department



The Department's headquarters organizations are located in Washington, D.C. and Germantown, MD and consist of an executive management structure that includes the Secretary, the Deputy Secretary, and the Under Secretary; nine Secretarial staff organizations; and program organizations that provide technical direction and support to the principal programmatic missions of the Department. The Department's organization also includes the Federal Energy Regulatory Commission, which is an independent regulatory organization within the Department having responsibility for setting rates and charges for the transportation and sale of natural gas and for the transmission and sale of electricity and the licensing of hydroelectric power projects.

The Department has a complex field structure that is comprised of operations offices, field offices, power marketing administrations, laboratories, and other facilities, as reflected in the following chart. The eight operations offices are the largest field organizations under the Secretary's supervision and management and provide a formal link between headquarters, the laboratories, and other operating facilities. The Department also has several other field offices concerned primarily with specific programs. These field offices include the Rocky Flats Field Office (responsible for managing waste and materials, clean-up, and converting the site to beneficial use), the Golden Field Office (responsible for promoting the research, development, commercialization, and worldwide application of energy efficiency and renewable energy technologies), the Ohio Field Office (primarily responsible for

providing administrative, financial, and technical support in completing environmental restoration and waste management at the Fernald Environmental Management Project Area Office), the Naval Petroleum Reserves Offices (responsible for managing, operating, and maintaining the Reserves to produce oil and gas for the greatest value and benefit to the United States), the Energy Technology Centers (responsible for providing research, development, and deployment of technologies for the greater use of coal and other energy sector products), and the Naval Reactor Offices (responsible for overseeing the Bettis and Knolls Atomic Power Laboratories). The marketing and transmission of electric power produced at Federal hydroelectric projects and reservoirs is carried out at the Department's five power marketing administrations. The vast majority of the Department's energy research and development, nuclear weapons research and development, and testing and production activities are carried out by major contractors at laboratories and other facilities located across the country. These major contractors (e.g., management and operating (M&O) contractors, management and integrating contractors, and environmental restoration management contractors) operate, maintain, or support the Department's Government-owned facilities across the country on a day-to-day basis.



More information about the Department can be obtained by accessing our Internet home page at <http://www.doe.gov>

## Mission of the Department

The Department's first priority is to help the President achieve his vision of an investment-driven economy capable of creating high wage jobs that increase incomes of the American people. This requires a strategy for empowering and utilizing the Department's tremendous scientific and technological assets to help the U.S. compete in the global economy. This has prompted the Department's mission which reads as follows:

***The Department of Energy, in partnership with our customers, is entrusted to contribute to the welfare of the Nation by providing the technical information and scientific and educational foundation for the technology, policy, and institutional leadership necessary to achieve efficiency in energy use, diversity in energy sources, a more productive and competitive economy, improved environmental quality, and a secure national defense.***

Recent changes in the world have had a profound impact on the Department. The end of the Cold War has allowed us to reshape our vision and change how we do business. Our vision is as follows: The Department of Energy through its leadership in science and technology will advance U.S. economic, energy, environmental, and national security by being:

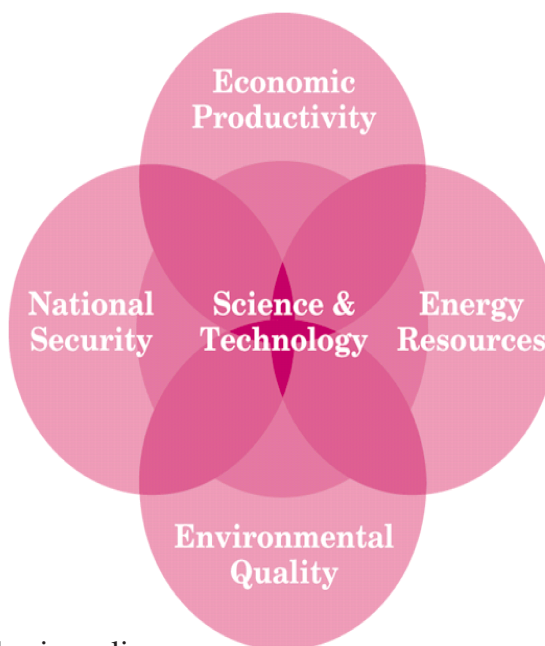
- A key contributor in developing, applying, and exporting sustainable, clean, and economically competitive energy technologies.
- A key contributor in maintaining U.S. global competitiveness through leadership in environmentally-conscious materials, technologies, and industrial processes.
- A major partner in maintaining energy security and reducing vulnerability to energy disruptions through international leadership in effective, coordinated emergency response and petroleum replacement plans and programs.
- A major partner in world class science and technology, research centers, university research, and educational programs.
- A world class leader in environmental restoration, waste management, and pollution prevention.
- A vital contributor to reducing the global nuclear danger through its national security and nonproliferation activities.
- A safe and rewarding workplace that promotes excellence, nurtures creativity, rewards achievement, and is results-oriented and enjoyable.

The key goals to accomplish the Department's mission are:

- Leverage the Department's unique science and technology capabilities to provide knowledge that drives the nation's future.
- Reduce the global nuclear danger.
- Restore, stabilize, protect, and enhance the environment.
- Develop and promote clean efficient energy technologies and enhance energy security.
- Stimulate U.S. economic productivity.

## Accomplishing the Goals through 5 Business Lines

More than ever, American citizens are holding the government more accountable for superior results with fewer resources. We now measure performance from the customer's perspective, strategically aligning business plans, goals, and organizational structures with our vision. The Department has developed a strategic plan which defines and integrates the business activities into "business lines" that represent elements of the Department's mission: science and technology; national security; environmental quality; energy resources; and economic productivity. In order for the Department's business lines to produce results and sustain all of our initiatives, the organizational systems need alignment and integration. Therefore, the Department has developed four critical success factors - communication and trust; human resources; environment, safety, and health; and management practices - that must be integrated into each of the five business lines.



## Program Performance Measure Highlights

The Department has established commitments that identify our most significant outcomes under each business line and critical success factor. Under each of these commitments, the Department has established "measures of success" consistent with our FY 1996 budget. The FY 1996 Performance Agreement with the President sets forth 67 commitments and 183 measures of success. Many of these significant performance commitments are discussed within the overview, and the remaining performance commitments are discussed in the supplemental information.

The following performance commitments highlight many of the Department's significant FY 1996 results under each business line and each critical success factor.

### Business Lines

#### **Science & Technology**

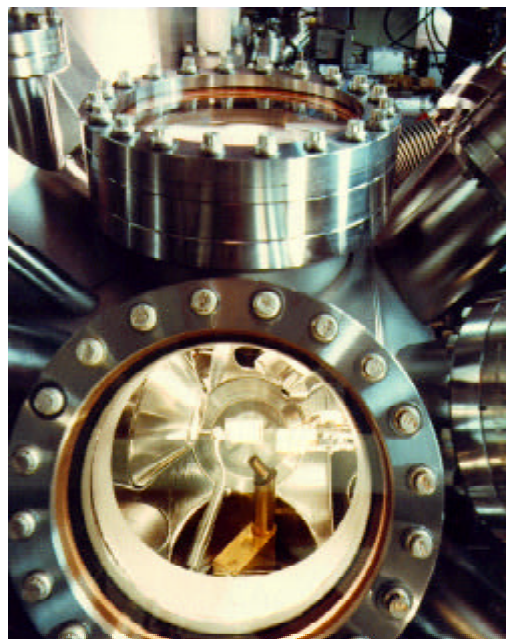
**Leverage DOE's Unique Science and Technology Capabilities to Provide Knowledge that Drives the Nation's Future.**

Fundamental and applied research supported by the Department advances U.S. world leadership in science, mathematics, and engineering. The Department's National Laboratories play a critical role in large scale, multi-disciplinary research in the national interest. The Department offers unique

## Overview

advanced research facilities for the use of the nation's and world's scientific community. We support the research of individuals of unparalleled intellectual strength and scientific curiosity.

Our energy, environmental, and health research provide the foundation for new technologies that supply energy, conserve resources, control pollution, reduce manufacturing waste, predict the impacts of global climate change, develop new ways to cleanup hazardous waste, and assess energy related health and environmental risks. Our basic research in high energy physics and fusion leads to new insights into the nature of energy and matter. The Department also provides leadership in the national effort to improve science, mathematics, and engineering education.



AT&T Bell Laboratories built this unique chamber at the National Synchrotron Light Source at the Brookhaven National Laboratory for surface studies of materials.

## Improving Service Delivery at DOE Science Facilities

Improve the efficiency of operations and quality of services provided to scientists at the Department's leading-edge basic research facilities. Ensure that facilities are available to users and operated in a reliable and predictable manner that ensures high-quality research products and technology innovations.

### Goal:

*Increasing the availability of DOE scientific facilities consistent with the Science Facilities Initiative to enable a wide array of research that will advance science and produce tomorrow's technologies by increasing the operating time at the:*

- Stanford Synchrotron Radiation Laboratory from 4,000 to 5,600 hours, a 40 percent increase;
- Advanced Light Source from 3,000 to 4,200 hours, a 40 percent increase;
- Intense Pulse Neutron Source from 2,000 to 4,000 hours, a 100 percent increase; and
- High Flux Beam Reactor from 3,600 to 4,700 hours, a 30 percent increase;

*and increasing or upgrading user beamlines from 200 to 210 to improve user capabilities at the synchrotron light sources and neutron facilities.*

### FY 1996 Results:

*The Department has improved the efficiency of operations and quality of services provided to scientists at the Department's leading-edge basic research facilities. The Department continues to ensure that facilities are available to users and operated in a reliable and predictable manner that ensures high-quality research products and technology innovations. Consistent with the Science Facilities Initiative, the Department's operating times have increased:*

- Stanford Synchrotron Radiation Laboratory operating at 5,252 hours, a 31 percent increase;
- Advanced Light Source operating at 4,461 hours, a 49 percent increase;
- Intense Pulse Neutron Source operating at 4,104 hours, a 105 percent increase; and
- High Flux Beam Reactor operating at 6,261 hours, a 74 percent increase.

*There were 11 new beamlines and 8 upgraded beamlines put into operation during FY 1996 to improve user capabilities at the synchrotron light sources and neutron facilities, and several more have received funding.*

## Transferring Environmental Technologies

Demonstrate new environmental technologies and systems and transfer them to private industry and Federal facilities.

### Goals:

*Demonstrating over 166 new environmental technologies and systems, to include the:*

- *Radioactive Plasma Hearth Process;*
- *Cesium Removal Demonstration at Oak Ridge; and*
- *Spectral Gamma Probe for Cone Penetrometer.*

*Making 66 environmental technologies available for transfer and use by private industry and Federal facilities, to include the:*

- *Light Duty Utility Arm at Hanford;*
- *Portable Vitrification Unit at Oak Ridge;*
- *Mobile Evaporator at Oak Ridge; and*
- *LASAGNE™ in-situ process for waste treatment.*

### FY 1996 Results:

*Due to decreased funding and delays, the Department revised the target to 126 new environmental technologies and systems demonstrated. The Department has completed the key technologies and systems; however, only 123 of the 126 planned demonstrations were completed due to technical or procurement problems.*

*The target was also revised to 48 technologies available for transfer and use because of decreased funding and delays. The Department completed 44 of the 48 planned transfers. The four not completed were delayed until FY 1997 due to problems during the final demonstration phase or cost and performance data reviews.*

## Exploring the Frontiers of High Energy Physics

Pursue opportunities for the U.S. to participate in the Large Hadron Collider (LHC) project at the European Laboratory for Particle Physics (CERN) in Geneva, Switzerland to explore the frontier of experimental high energy physics and promote increased international scientific collaboration.

### Goal:

*Success will be measured in 1996 by negotiating one or more LHC agreements with CERN, in partnership with the National Science Foundation (NSF) to enable American scientists to explore the fundamental nature of energy and matter.*

### FY 1996 Results:

*In June 1996, the Department's negotiating team reached tentative agreement on DOE contributing \$200 million in goods and services to the LHC Accelerator and \$250 million to the two large detectors over a 10 year period. NSF will contribute about \$80 million. The Umbrella Agreement and Accelerator and Detector Protocols have been drafted and are under review by the administrative Working Group. The Accelerator and Detector Working Groups have identified areas of responsibility within defined funding levels. Work is progressing with interested U.S. laboratory and university groups on detailed cost estimates and proposal preparation for DOE and NSF.*

## Providing Radioisotope Power Systems for U.S. Space Exploration

Provide the Radioisotope Thermoelectric Generators (RTGs) and Radioisotope Heater Units (RHUs) for current National Aeronautics and Space Administration (NASA) missions and maintain the infrastructure and capability to produce radioisotope power systems for the future.

### Goals:

*Delivering, by August 1996, three RHUs for the Mars Pathfinder mission to be launched in December 1996.*

*Completing fabrication of 157 RHUs and two of the three heat sources to be placed in the RTGs for the 1997 Cassini mission to Saturn.*

### FY 1996 Results:

*The Department delivered on schedule the three RHUs for the Mars Pathfinder mission, which was launched in December 1996.*

*The fabrication of the 157 RHUs and the two heat sources for the RTGs was successfully completed for the Cassini mission to Saturn.*

## National Security

### Reduce the Global Nuclear Danger

The Department is responsible for effectively supporting and maintaining a safe, secure, and reliable enduring nuclear weapons stockpile without underground nuclear testing or new weapons production. In addition, the Department will safely dismantle and dispose of excess weapons and provide the technical leadership for national and global nonproliferation activities.

In August of 1995, the President announced the U.S. would seek a zero-yield Comprehensive Test Ban Treaty. This decision was based in part on assurances by the Department that our science based stockpile stewardship program, along with new certification procedures, would ensure the continued safety and reliability of the nuclear weapons stockpile.

The Department developed a Stockpile Stewardship and Management program as a single, highly integrated technical program for maintaining the safety and reliability of the U.S. nuclear weapons stockpile in an era without underground testing or new weapons production. The program has three basic challenges: (1) maintaining the enduring nuclear weapons stockpile while transforming the complex into one more appropriate for a smaller stockpile; (2) preserving the core intellectual and technical competencies of the weapons laboratories; and (3) ensuring the activities needed to maintain the nation's nuclear deterrent are coordinated and compatible with the nation's arms control and nonproliferation objectives.

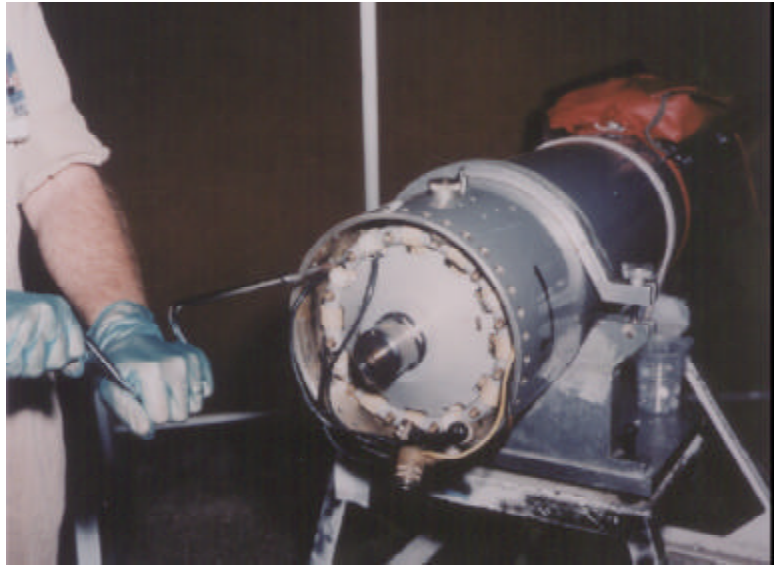
### Reducing the Weapons Stockpile

Safely reduce the U.S. nuclear weapons stockpile in order to reduce the nuclear danger and enhance international accord.

#### Goal:

*Dismantling 1,164 weapons in FY 1996 without adversely impacting the environment, public safety, and health.*

The parachute is removed from the tail section of a nuclear weapon during disassembly at the Pantex Plant in Amarillo, Texas. DOE has disassembled some 50,000 nuclear weapons over the years in a safe, secure, efficient, and environmentally sound manner.



#### FY 1996 Results:

*The Department has dismantled 1,064 warheads. The target of dismantling 1,164 warheads was not reached due to the temporary shutdown of the B61-2 weapon dismantlement line with safety concerns that slowed down operations.*

## Managing Surplus Weapons-Usable Fissile Materials

Define and implement a path forward for verifiable storage and disposition of U.S. weapons-usable fissile materials and support efforts to attain reciprocal actions for disposition of surplus Russian plutonium.

### Goals:

*Publishing, by February 1996, a draft and, by September 1996, the final Programmatic Environmental Impact Statement (PEIS) for storage and disposition of weapons-usable fissile materials.*

*Completing by May 1996 a final Environmental Impact Statement (EIS) for down-blending surplus weapons-usable uranium into low enriched uranium for potential use in commercial reactor fuel.*

*Completing, by September 1996, a United States/Russian joint study to develop a set of consistently evaluated plutonium disposition alternatives.*

### FY 1996 Results:

*The Department issued a draft PEIS for Storage and Disposition of Surplus Weapons-usable Fissile Materials in February 1996, and a final PEIS was released in December 1996. A Record of Decision was released in January 1997. These efforts will provide the President with the basis and flexibility to implement plutonium disposition in a manner that encourages reciprocal action abroad.*

*The final EIS for the Disposition of Surplus Highly Enriched Uranium was approved for publication in May 1996, and the Department's preferred alternative is to down-blend highly enriched uranium to low enriched uranium for peaceful use as commercial reactor fuel.*

*The report of the joint U.S./Russian working group studying technical options for the disposition of surplus weapons plutonium was completed and sent to Presidents Clinton and Yeltsin in September 1996.*

## Establishing Transparent and Irreversible Nuclear Reductions Worldwide

Exchange and confirm data on weapons materials inventories. Monitor nuclear warhead production and expedite dismantlement of excess weapons under bilateral agreements. Conduct reciprocal bilateral inspections of nuclear components and materials. Implement the purchase agreement of the 500 metric tons of highly enriched uranium (HEU) from dismantled former Soviet Union warheads. Work to reduce weapons inventories.

### Goals:

*Implementing the draft agreement with Russia initialed in November 1995 and implementing transparency measures for the Ural Electrochemical Integrated Enterprise (UEIE) and the Portsmouth Gaseous Diffusion Plant.*

*Finalizing annexes to the agreement with Russia.*

*Before the 6th Gore/Chernomyrdin Commission meeting, resolving issues of timely payment to Russia for the natural uranium used to convert the HEU into low enriched uranium (LEU).*

*Supporting White House efforts to obtain Congressional approvals for Presidential authority to waive anti-*

### FY 1996 Results:

*During FY 1996, the U.S. and Russian officials conducted very successful monitoring visits to facilities in each country. The U.S. opened the UEIE Permanent Presence Office in Novouralsk, Russia.*

*At the Fourth Session of the Transparency Review Committee in Vienna, Austria, in April 1996, the U.S. and Russia finalized all remaining HEU transparency annexes. Comprehensive transparency measures are now in place.*

*Passage of the United States Enrichment Corporation (USEC) Privatization legislation has, in large part, resolved the issue of allowing a substantial portion of the natural uranium component from the Russian LEU project deliveries to enter the U.S. market, allowing the Russians to receive revenues from the sale of the natural uranium.*

*The Department supported White House efforts to include language in the USEC Privatization legislation that*

## Overview

*dumping duties against uranium imported into the U.S. under the HEU Purchase Agreement.*

*would have waived anti-dumping duties against uranium imported into the U.S. under the Russian HEU Purchase Agreement. Although the language was not included in the final USEC Privatization Act, the act did help resolve other uranium importation issues.*

*Obtaining the low enriched equivalent of 12 metric tons of HEU.*

*The low enriched equivalent of 12 metric tons of HEU has been delivered from Russia to the U.S.*

## Environmental Quality

### Restore, Stabilize, Protect, and Enhance the Environment

The Department needs to understand and reduce the environmental, safety, and health risks and threats from operations and to develop the technologies and institutions required for solving domestic and global environmental problems. The Department's six priorities are to: address urgent risks; assure worker safety; assume managerial and financial control; obtain on-the-ground results; focus our technology development; and involve the public in our decisions. Reducing urgent risks from unstable plutonium, corroding spent nuclear fuel and targets, and high-level waste tanks will remain our highest priority. We will continue to get more cleanup results through the changes we have made in the way we do business.

Public involvement is helping us to make economically acceptable decisions on how our program is to move forward. Our budget "work out" sessions are bringing the Department together with the Federal and State regulators to find more cost-effective ways to meet our commitments and modifying existing compliance agreements as necessary to conform with budget constraints.



The Defense Waste Processing Facility at the Savannah River Site converts high-level radioactive waste into borosilicate glass through a process called vitrification.

## Understanding and Dealing with the Risks

Utilize newly developed information to maximize risk reduction and risk prevention associated with environmental problems resulting from nuclear weapons production during the Cold War.

### Goals:

*Completing the sampling, analysis, and characterization of 25 high-level radioactive waste tanks at Hanford.*

### FY 1996 Results:

*The Department has completed sampling, analysis, and characterization on 40 high-level radioactive waste tanks*

at Hanford, and 40 characterization reports have been received and accepted by the Department.

*Finishing an analysis of DOE "materials in inventory," including a path forward for at least 10 material types, including lithium, chemicals, and weapons components.*

*The Department has completed an analysis of DOE "materials in inventory" and published a report in January 1996, "Taking Stock: A Look at the Opportunities and Challenges Posed by Inventories from the Cold War Era." Efforts are underway to address recommendations in the report and implement changes early in FY 1997.*

*Submitting to Congress in May 1996 an updated Baseline Environmental Management Report (BEMR) that will improve the accuracy of cost data over the 1995 report. This report will analyze the long-term cost impact of delaying or accelerating funding rates.*

*The Department has also released an updated version of the BEMR in May 1996 that gives an improved estimate of costs and shorter schedules for cleanup than last year's report.*

## Reducing the Risks; Cleaning up Nuclear Weapons Sites

Reduce environmental, safety, and health risks by cleaning up DOE sites.

### Goals:

*Completing 120 environmental cleanup actions.*

### FY 1996 Results:

*The Department has completed 272 environmental cleanup actions in 16 states, consisting of 157 final remedial actions and 115 interim actions.*

*Stabilizing 250 kg of plutonium residues and solutions at the Hanford and Savannah River sites.*

*The Department exceeded expectations and stabilized 482 kg of plutonium residues and solutions. This includes 99 kg of plutonium solutions at Savannah River and 2 kg of plutonium solutions plus 381 kg of plutonium residues at Hanford.*

*Finishing 12 decommissioning projects and 154 Uranium Mill Tailings Remedial Action (UMTRA) property clean-ups. (Targets were revised to 43 decommissioning projects and 137 vicinity property remedial action projects at both Formerly Utilized Sites Remedial Action Program and UMTRA sites.)*

*The Department has completed 47 decommissioning projects and 163 vicinity property remedial actions.*

*Treating and/or disposing of more than 3 million cubic meters of DOE waste, including starting up vitrification of high-level radioactive waste at the Defense Waste Processing Facility in Savannah River by December 1995 and at the West Valley Demonstration Project by March 1996.*

*The original waste disposal goal may have been derived from all the DOE legacy waste in inventory and ongoing operations as stated in the Baseline Environmental Management Report or the vast quantity of waste water that is cleaned and returned to the environment. Through FY 1996, the Department tracked performance against a baseline inventory of 348,211 cubic meters. During FY 1996, 12,865 cubic meters of high-level waste (HLW) were reduced from DOE's waste inventory. The FY 1996 ending inventory is 346,137 cubic meters. The Defense Waste Processing Facility began radioactive waste processing in March 1996, and the West Valley Demonstration Project received authorization to begin processing radioactive high-level waste in June 1996. A total of 89 canisters of vitrified radioactive high-level waste have been filled at these facilities.*

## Overview

### Finding Solutions to Spent Nuclear Fuel Storage and Funding Issues

Refocus the Civilian Radioactive Waste Management Program to provide meaningful deliverables that are consistent with reduced funding and revised policies.

#### Goals:

*Issuing by March 1996 a revised program plan to determine the suitability of the Yucca Mountain site.*

*Preparing a plan by September 1996 that identifies the steps to ensure an aggressive start on interim storage of spent fuel should enabling legislation be enacted.*

*Completing, by March 1996, 2.5 miles of the exploratory tunnel and beginning two test alcoves in the potential repository formation at Yucca Mountain.*

#### FY 1996 Results:

*A May 1996 revised program plan aligns future activities and milestones with the Department's FY 1997 budget request and with Congressional guidance received in the FY 1996 appropriations legislation.*

*The steps necessary to ensure an aggressive start on the interim storage of spent fuel have been incorporated in the program plan.*

*The Department exceeded set performance goals by boring more than four miles of the exploratory tunnel and completing work on four test alcoves.*

## Energy Resources

### Develop and Promote Clean Efficient Energy Technologies and Enhance Energy Security

The Department will encourage efficiency and advance alternative and renewable energy technologies; increase energy choices for all consumers; assure adequate supplies of clean, conventional energy; and reduce U.S. vulnerability to external events. Departmental research and development programs are part of the nation's investment in our energy future. The work covers a broad spectrum of energy forms and technologies intended to make production and utilization of all forms of energy, including renewables, fossil, and nuclear, more efficient and environmentally benign.



The sulfur lamp installation outside of DOE's Forrestal Building produces 4 times as much light at 1/3 the cost of conventional lighting.

Energy research and development has resulted in important gains in energy efficiency and fuel substitution that counteract the nation's reliance on oil imports. It has also yielded technologies that allow us to produce and use conventional fuel resources more efficiently and with significantly less environmental impact. The work will improve the energy outlook for future generations. Protecting and enhancing environmental quality is a vital aim of the Administration's energy policy. The Department plays a major role in implementing the Climate Change Action Plan through voluntary programs and partnerships.

These strategies and the successes they are producing for future energy security are backed up by vigorous leadership in the International Energy Agency to develop and maintain effective, coordinated response measures to deter and mitigate near-term energy supply threats. This leadership, backed up by a system of strategic energy reserves held by the member nations, provides an effective security environment for the orderly development of sufficient, efficient, and environmentally benign energy forms and technologies for the future.

### **Transferring Proven Energy Efficiency Measures**

Apply energy efficiency measures to buildings and operations to reduce government energy consumption by 30 percent by 2005, save low-income residents over \$10 million in annual energy costs, and reduce energy consumption by one quad by the turn of the century.

#### Goals:

*Adding six new major Energy Savings Performance Contracts, including an innovative government-wide contract to make it simpler, cheaper, and faster for government agencies to save energy.*

*Applying the 15 energy and money saving technologies used in the "Greening of the White House" to three additional showcase buildings and existing Federal facilities. Adopting these technologies will save taxpayers and their Federal agencies \$50 million in energy costs in 1996, 10 percent from DOE facilities, and attract double the current private investment for new Federal facility energy projects, accumulating \$60 million by year's end.*

*Weatherizing 83,300 more low income homes, for a total of 4.4 million homes, which will save those residents a total of \$450 million in energy costs every year.*

#### FY 1996 Results:

*The Department has seven new major Energy Savings Performance Contracts underway.*

*The 15 energy and money saving technologies are being applied at the Pentagon, Presidio, Forrestal building, and Yellowstone Park. Federal energy cost savings greatly exceeded targets. These technologies added \$40 million in private sector investment commitment, exceeding our target by \$10 million.*

*The Department weatherized over 56,000 homes as a result of the delayed passage of a smaller budget. This performance conducted under a smaller budget is equivalent to the number of homes projected with a fully funded budget.*

### **Developing Renewable Domestic Energy**

Advance renewable energy development through cost-shared industry, laboratory, and DOE partnerships.

#### Goals:

*Developing the U.S. renewable industry through \$400 million of foreign and domestic sales.*

*Showcasing 25 energy efficiency and renewable energy technologies at the 1996 Summer Olympic Games in Atlanta to over 2 million visitors and 3 billion viewers.*

*Attracting \$100 million of private sector investment to cost share our research and development in renewable technologies.*

#### FY 1996 Results:

*The Department estimates that developments in the U.S. renewable industry have fostered over \$600 million in foreign and domestic sales for renewable energy projects, far surpassing the target. This represents over 400 megawatts of renewable energy installations.*

*Twenty six efficiency and renewable energy technologies were demonstrated at the 1996 Summer Olympic Games.*

*Private sector investments totaled \$85 million. Extended negotiations on one major contract, expected to be more than \$15 million, delayed award to FY 1997.*

## Overview

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### Providing a New Option to Supplement the Nation's Liquid Fuels

Provide the nation by 2005 with an alternative source of liquid fuels, costing \$25 per barrel or less, that can be produced from coal and solid wastes.

#### Goal:

*Completing an initial series of laboratory-scale baseline tests that verify the potential for significantly reducing the cost of producing liquid fuels by processing coal with plastics, rubber, or other solid wastes.*

#### FY 1996 Results:

*Research is being conducted at the Consortium for Fossil Fuel Liquefaction Science (U. of Kentucky, U. of Pittsburgh, West Virginia U., Auburn U., and the U. of Utah), Hydrocarbon Technologies, Inc., CONSOL, Inc., and the Pittsburgh Energy Technology Center. Preliminary economic analysis performed by MITRETEK indicates economic promise with plant sizes at 10,000 barrels per day and larger. While early results demonstrated feasibility, process studies were needed to establish reaction conditions that could produce high-conversion at steady-state when "real" waste materials were used. Baseline tests have been conducted. Results using tire rubber, mixed plastic waste, and coal have been successful, having confirmed the preliminary economic analysis which showed that coal/waste processing has the potential to produce coal derived-liquid fuels at about \$21 per barrel in plants integrated into existing refineries. Process work will continue to firm up the database and to find cheaper approaches that could be economic at smaller-scale. A Sources Sought announcement has been issued to define stakeholders and their interests in this research area. Responses received so far indicate interests from waste managers, technology developers, and potential project sponsors.*

### Implementing the Climate Change Action Plan

Support the President's Climate Change Action Plan to reduce carbon emissions by over 23 million metric tons, produce \$15 billion in energy savings, and stimulate \$20 billion in industrial investment by the year 2000.

#### Goals:

*Increasing sales of the most energy efficient appliances and building equipment by \$50 million this year through eight industry collaboratives and four of the biggest national appliance retailers. This program, Energy Saver, will save enough energy to eliminate 8 million metric tons of carbon by 2000.*

#### FY 1996 Results:

*The Department achieved the equipment sales objective of \$50 million this year.*

*Tripling industry Climate Wise commitments to voluntarily reduce carbon emissions by adding 100 additional industrial companies and two new Climate Wise Trade Associations. Our industrial partners are improving their competitive position by recycling, eliminating waste, and saving energy; enough to reduce carbon emissions by 4 million metric tons by 2000.*

*The Department added 120 Climate Wise partners, bringing the number of partners to 150.*

*Awarding 16 new National Industrial Competitiveness Through Energy, Environment, and Economics (NICE<sup>3</sup>) grants to industry and government cost-shared projects that will demonstrate new cost-effective clean energy technologies, attracting five investor dollars for every*

*The Department awarded and implemented 16 new NICE<sup>3</sup> grants for \$7 million in projects in 14 states.*

*Federal dollar and reducing our year 2000 carbon emissions by nearly 2 million metric tons.*

*Implementing our 21 new Showcase national partner demonstration projects for electric motor drives and systems in our Motor Challenge program, saving businesses \$4 million this year and taking more than 5 million metric tons of carbon out of the air by the year 2000.*

*Nearly doubling the community and regional partnerships to improve commercial building energy efficiency. The 90 Rebuild America partnerships - 40 are new this year - attract an average of \$30 of private investment for every public dollar. By the year 2000, the buildings adopting the Rebuild energy savings practices will save their communities over \$2 billion and take over 1 million tons of carbon out of the air.*

*Adding 40 new utilities to our 108 Climate Challenge agreements to voluntarily reduce emissions. By the end of the year we will have 600 partner utilities that account for two-thirds of utility carbon emissions. We expect our utility partners to increase their ongoing energy saving programs enough to take an additional 7 million metric tons of carbon out of their service areas by the year 2000.*

*The Department continued implementation of 18 Showcase partnership demonstration projects (3 companies dropped out) and initiated 12 new demonstration projects. During FY 1996, completed projects saved \$1.2 million, and 20 continuing projects are on track to save \$2-3 million.*

*During FY 1996, the partnership goal was met by adding 55 new partners and retrofitting commitments for 200 million commercial square feet and 50,000 homes.*

*The Department now has 630 utility Climate Challenge partners, exceeding the partner goal. Utility partners remain committed to take an additional 7 million metric tons of carbon out of their service areas by the year 2000.*

## **Economic Productivity**

### **Stimulate U.S. Economic Productivity**

The Department will promote sustained economic growth and the creation of high-wage jobs through research and development partnerships with industry and other Federal agencies. The Department will put the vast scientific and technological assets of its laboratories and facilities to the best use in advancing the U.S. position in a global market that is becoming increasingly competitive. This business line is crosscutting in nature, as it reaches across multiple organizational missions, funding levels, and activities. As a result, this business line is incorporated within the other four business lines when displaying various financial information.

Atlantic-Pacific Technologies, Inc., a U.S. firm, signs a contract to develop a renewable energy hybrid systems manufacturing plant with Wagner Systems, a South American company, as the former Secretary of Energy Hazel O'Leary and the former South African Minister of Mineral and Energy Affairs Pik Botha observe.



### **Increasing U.S. Energy Technology and Exports and Investments**

Stimulate sales of U.S. energy technology and capital investments in countries with large, emerging markets. Diversify world wide supply through targeted support for U.S. industry efforts to invest in new oil and gas supplies and energy efficiency and renewable technologies.

## Overview

### Goals:

*Promoting the U.S. renewable industry in fostering foreign and domestic sales of \$400 million and foreign sales agreements representing \$1.5 billion in sales.*

*Removing barriers to U.S. companies in coal technology export and efficiency and renewables markets, including those in China, Brazil and other developing countries that will use coal, by:*

- *establishing U.S. and foreign partnerships; and*
- *providing technical expertise to multilateral and regional financing institutions in evaluation of finance applications.*

*Initiating a forum, similar to that done for the Western Hemisphere, for Arctic oil and gas practices with the Russian producing associations.*

*Opening of oil, gas, energy efficiency, and renewable technology opportunities for U.S. companies by Ukraine.*

### FY 1996 Results:

*The Department estimates that efforts in promoting the U.S. renewable industry have fostered over \$600 million in sales of foreign and domestic renewable energy projects.*

*The Department's ongoing communications have encouraged China to strongly consider use of efficient clean coal technologies with improved environmental performance. A wider acceptance of larger scale fluidized bed combustion in China has resulted from continued information exchange. Interaction with the Asian Development Bank has resulted in their interest in financing the use of the integrated coal gasification combined cycle technology in China. The Department has held successful workshops on Coal Fires and Clean Coal Technology and on Fossil Fuel Power Generation and Clean Application. These workshops have resulted in reverse trade missions relating to clean coal technologies, more efficient energy producing technologies, and the purchase of a U.S. fluidized bed combustor by the Brazilians.*

*DOE has identified candidates for a joint experts group. The Russian Government has proposed, and the U.S. has agreed to hold a workshop to facilitate a meeting of the experts group.*

*Following major changes in the Ukrainian Government, DOE participated in an oil and gas investment conference held by the Ukraine in October 1996. A binational meeting between the U.S. and Ukraine was also held in October 1996 on coal and power sector reforms, domestic oil and gas development, and energy efficiency and included a dialogue on opportunities for U.S. investment and technology export.*

## Critical Success Factors

The Department has adopted total quality management principles to improve overall effectiveness and reduce costs. In efforts to realize the Department's mission and exceed customer requirements, the Department has focused on the following four critical success factors.

### **Communication and Trust**

#### **Improve Communication and Trust**

This factor examines how we communicate information and build trust within the Department and with our stakeholders and customers. This is especially important with our post-Cold War missions in the environment of openness, communication, and trust.

## **Making More Information Available to the Public**

Declassify information under the Atomic Energy Act and Executive Order 12958, reduce the volume of new information classified, and make information more accessible.

### Goals:

*Reviewing 440,000 documents for possible declassification.*

*Completing a survey of classified DOE records for declassification and making public a list of records reviewed.*

*Completing declassification and release of 15 percent of historically significant national security information records 25 years old and older.*

*Issuing the final report on Fundamental Classification Policy Review and implementing its recommendations for declassifications.*

*Making available on the Internet a list of unclassified documents on Human Radiation Studies*

### FY 1996 Results:

*The Department reviewed 620,000 documents in classified collections for possible declassification during FY 1996.*

*The Department has completed a survey of classified records. The records database will be available to the public in 1997.*

*The Department exceeded the goal by successfully completing the declassification of 19 percent of the collections containing 25 year old or older permanently valuable national security information for release, pending final archival processing.*

*A report has been completed; however, discussion and coordination for implementation of recommendations are being held with the Department of Defense.*

*The inclusion of unclassified data on Human Radiation Studies was substantially completed in October 1996. 250,000 pages of data are now accessible.*

## **Human Resources**

### **Increase Productivity of DOE's Human Resources for Our New Mission**

This factor examines how we recruit, train, and develop; reward performance; motivate; and promote diversity within our workplace. The Department aims to create an environment where teamwork, trust, openness, pride, and respect are standard practices, and excellent performance is rewarded. Additionally, the Department aims to provide meaningful work opportunities and implement innovative compensation and personnel initiatives to attract and retain a diverse and well-trained workforce capable of carrying out the Department's mission.

### **Ensuring Workforce Diversity**

Recruit, hire, and retain a diverse workforce and assure that DOE contractors achieve diversity.

### Goals:

*Maintaining diversity achievements during downsizing in FY 1996.*

*Developing and implementing diversity strategies at all DOE field sites.*

*Implementing the DOE strategic diversity plan at five additional sites.*

### FY 1996 Results:

*During FY 1996, the DOE permanent workforce decreased by 1,146 (6.52 percent) from 17,587 to 16,441. The percentage of minorities and women decreased by 0.15 percent, from 47.94 percent to 47.79 percent.*

*Strategic Diversity Plans were received from 17 of 22 headquarters elements and 13 of 18 field elements.*

*Developed and implemented a Diversity Program Monitoring System to measure the Department's success in recruiting, hiring, and retaining a diverse workforce*

during the strategic alignment process. Conducted a DOE Contractors Diversity Conference at Chicago Operations Office during June 4-5, 1996. Developed Diversity Partnership Statement and strategies for implementation at contractor organizations. Conducted quarterly conferences with DOE diversity program managers at different field sites. Operations offices are responsible for monitoring contractor activities in the areas of affirmative action and equal employment. This monitoring activity includes the review of formal complaints filed against contractors with enforcement agencies to identify systemic issues.

## **Improving Human Resource Practices**

Develop techniques for ensuring management success in achieving performance goals critical to realizing the Department's mission.

### Goals:

*Implementing "360 Degree" performance feedback for all Senior Executive Service (SES) employees by collecting input from supervisors, peers, subordinates, and customers and by obtaining input for all career SES employees during FY 1996.*

*Beginning to implement the "360 Degree" process for non-SES supervisors and managers by March 1996.*

*All managers receiving appropriate quality training by June 1996 and promoting training for their staffs.*

*Establishing pilot partnership programs to reengineer how personnel services are delivered to customers, with a goal of reducing processing times of typical personnel services by 25 percent.*

### FY 1996 Results:

*Training on the SES performance appraisal system process was conducted in February and March 1996. SES employees received "360 Degree" feedback as part of their overall performance appraisals via mid year progress reviews in May 1996.*

*Thirteen of DOE's 20 principal field organizations and one Headquarters organization have implemented or are planning to implement "360 Degree" feedback systems that cover all categories of employees.*

*As of the end of FY 1996, the Department has provided quality training to 871 senior managers through the Executive Leadership Forum training effort. This training consisted of Covey training, "The Seven Habits of Highly Effective People," "Leaders for a Customer-Driven Organization," and other quality training sponsored by the Department.*

*Effective partnerships have been established with two headquarters offices for the purposes of sharing resources and reducing processing times of personnel actions by as much as 50 percent.*

## **Environment, Safety, and Health**

### **Achieve Excellence in the Safety and Health of DOE Workers, the Public, and the Environment**

This factor examines how the Department ensures safety and health of workers and the public and how it protects and restores the environment. The Department continues to shift from a reactive approach to an emphasis on prevention and excellence in protecting worker and public safety and health and in achieving environmental standards. The Department has opened its records related to environment, safety, and health and provided stakeholders easy access to the information.

## **Incorporating the Existing Risk-Based Planning and Budgeting Process into All Major Contracts**

By September 1996, incorporate the risk-based environment, safety, and health planning and budgeting process into all new major contracts and those that are scheduled for renewal.

### Goal:

*Inclusion of strong and effective environment, safety, and health provisions in six major contracts.*

### FY 1996 Results:

*The Department has included strong, effective environment, safety, and health provisions in eighteen major contracts.*

## **Implement the “Necessary and Sufficient Closure Process” to Ensure Safe Operations in a Streamlined Environment**

Identify and implement standards appropriate for work being done that will provide for the health and safety of workers, the public, and the environment.

### Goal:

*Success will be measured by completing nine pilot projects initiated in FY 1995 and beginning the full implementation of this process into the Department's operations by February 1996*

### FY 1996 Results:

*The Department has successfully completed nine WorkSmart Standards pilot projects which have resulted in a renewed focus by the Department on the relationship between work, the hazards associated with the work, and standards tailored to that work. An additional 15 projects are currently underway.*

## **Management Practices**

### **Become the “Best In Class” in the Use of Management Practices**

This factor examines how the Department allocates, spends, and accounts for resources and procures, produces, and contracts for goods and services. The Department is adopting “Best in Class” management practices in conjunction with our mission by meeting or exceeding customer expectations, by empowering and enabling people to be results-oriented and cost-effective, and by contributing to the Administration's deficit reduction objectives. The Department is also taking an integrated approach to managing headquarters, field, and contractor operations that focuses on performance.

### **Aligning the Department to Save Money and Enhance Performance**

Implement the Strategic Alignment Initiative through office consolidations, business process re-engineering, and elimination of non-essential activities.

The Department has undertaken a major organizational transformation through a deliberate and phased strategy that will significantly improve the efficiency of our operations and promote a forward thinking approach to meet future challenges and commitments. This major initiative started with the creation of our Strategic Plan that redefined our business lines and core missions and continues with the implementation of the Secretary's Strategic Alignment Initiative to achieve \$1.7 billion dollars in savings over a five year period. The Department's implementation of this initiative will provide better, more cost-effective means of performing the core missions as defined in the strategic plan.

Early on, the Department's leadership realized that Strategic Alignment would never be a complete success unless it was reported and publicized to a wide audience, including DOE employees and the Congress. Special emphasis was placed on conservative, realistic estimates of the dollar savings resulting from the success of several key initiatives.

## Overview

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In an effort to arrive at accurate data at a reasonable cost, the savings tracking processes agreed to by the initiative champions and validated by the Strategic Alignment Support Team are somewhat different for each major initiative. In the case of support service contracting, for example, procurement data were used to compare FY 1996 obligations to an adjusted FY 1995 baseline. By contrast, the National Environmental Policy Act (NEPA) process savings are consensus estimates. This is because NEPA data are not separately reported in the Department's systems, and the new reengineered process makes comparison to a prior FY 1995 baseline inappropriate.

In summary, the Strategic Alignment Initiative savings data shown in this report represent the Department's best estimates of our successes. The credibility of the savings data was measured by the General Accounting Office (GAO) in a May 1996 report, *Energy Downsizing*. This report indicated GAO's acceptance of these methods sufficiently to state that the plans to achieve cost savings for FY 1996 appeared to be on track.

### Goals:

*Closing eight field offices and four headquarters locations and reducing 1,380 Federal staff positions from May 1995.*

*Through process improvement, saving \$90 million in support contracting, \$49 million in information resource management, \$35 million in Federal and contractor travel, and \$6 million in NEPA compliance activities.*

*Returning \$15 million to the Treasury from the sale of surplus assets.*

### FY 1996 Results:

*Since implementing the Strategic Alignment Initiative in May 1995, the Department has closed eight field offices and five headquarters locations, saving more than \$1.6 million. Federal staff positions were reduced by 1,836, resulting in a level of 12,221 positions at fiscal year end (actual on-board employees declined by 999 during FY 1996). This Federal staffing reduction exceeded the original staffing target set by the Strategic Alignment Initiative by 456 positions.*

*End of fiscal year savings from support contracting - \$184 million; information resource management - \$88 million; Federal and contractor travel - \$40 million; and while no accounting data exists specifically for NEPA compliance activities, the Department estimates that this goal has been met.*

*\$4.7 million was returned to Treasury; short of the \$15 million goal. Several sales are still in progress.*

## Becoming a World Class Quality Organization

Implement improvement action plans based on the results of the 1995 self-assessment. Conduct a 1996 self-assessment of DOE quality management practices using the President's Quality Award or Malcolm Baldrige National Quality Award Criteria.

### Goals:

*Implementing quality improvement action plans by January 1996 at all headquarters and field organizations and all headquarters and field organizations completing their annual quality self-assessment by September 1996.*

*Demonstrating continuous performance improvement at all headquarters and field organizations in 1996 as compared with the results of their 1995 quality baseline self-assessment.*

### FY 1996 Results:

*During FY 1996, 23 of 38 Departmental Elements completed a self-assessment. Implementation of long- and short-term action plans is progressing. Downsizing and reorganizations have delayed some assessments.*

*Numerous improvements have been identified and reported. Energy Quality Award scores increased from 279 in 1995 to 341 in 1996, a 22 percent increase. Between 1994-1996, external customer satisfaction increased from 73 percent to 85 percent; 24 DOE Teams received Vice President Gore's Hammer Award for improvement efforts and efficiencies; 9 major DOE Organizations received State Quality Awards; and 31 DOE Organizations received Energy Quality Awards. The levels of excellence highlighted by this recognition*

*underscore the superb quality improvement gains throughout the Department.*

*By January 1996, completing the development of a system which aligns strategic and operational planning with strategic intent, ensures this planning drives resource allocation, involves regular evaluation of results, and provides feedback.*

*With the implementation of the DOE Strategic Management System in March 1996, DOE fulfilled its goal to develop a system that aligns strategic and operational planning with strategic intent, ensures this planning drives resource allocation, and provides for regular evaluation of results and feedback.*